

NMFS Written Summary  
and Exhibits 7 & 9  
Submitted 2.16.2010 for the Delta  
Flow Criteria Proceeding

Excerpts

CSPA-306

# Complete document urls:

- [https://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/deltaflow/docs/exhibits/nmfs/nmfs\\_summary.pdf](https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/deltaflow/docs/exhibits/nmfs/nmfs_summary.pdf)
- [https://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/deltaflow/docs/exhibits/nmfs/nmfs\\_exh7.pdf](https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/deltaflow/docs/exhibits/nmfs/nmfs_exh7.pdf)
- [https://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/deltaflow/docs/exhibits/nmfs/nmfs\\_exh9.pdf](https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/deltaflow/docs/exhibits/nmfs/nmfs_exh9.pdf)

# Protection of Public Trust Resources

- ... prescriptions in an ESA biological opinion are likely to be less than what is required for full recovery of the species. In contrast, protection of public trust resources means insuring the conditions that will support a sufficient number of self sustaining populations for the species as a whole to be self-sustaining for the foreseeable future - in other words, insuring recovery of the species. (Written Summary, p. 1)

# Sacramento River Reverse Flows

... setting a Sacramento River inflow criterion that maintains unidirectional flows in the mainstem Sacramento downstream of Georgiana Slough during the salmon emigration period would minimize opportunities for emigrating smolts to enter the Central Delta once they have passed the Georgiana Slough bifurcation. (Written Summary, p. 1)

# Shasta Storage (intro)

For example, in the Bay Delta Conservation Plan process, NMFS has recommended the following end of April (and September) Shasta storage numbers deemed necessary to support adequate water temperatures for winter-run Chinook, spring-run Chinook, and fall-run Chinook below Shasta Dam: (Written Summary, p. 1)

# End of April Shasta Storage

- End of April storage in Shasta Reservoir:
- Minimum end of April storage for all water year types other than those specified below: 3.8 million acre-feet (MAF; objective to meet Balls Ferry temperature compliance point (TCP) through management of cold water pool releases).
- Minimum end of April storage for wet years: 4.2 MAF (objective to meet Jelly's Ferry TCP through adaptive management of cold water pool releases).
- Minimum end of April storage for third (or more) year in a series of dry and/or critically dry of years (*i.e.*, a prolonged drought): 3.3 MAF (objective to meet Clear Creek TCP through management of cold water pool releases).
- (Written Summary, p. 2)

# End of Sept. Shasta Storage

- End of September storage in Shasta Reservoir:
- Minimum end of September storage: 2.2 MAF (objective to meet 3.8 MAF in end of April in the following year).
- Minimum end of September storage for second (or more) year in a series of dry and or critically dry years: 1.9 MAF (objective to meet 3.3 MAF in end of April in the following year).
- (Written Summary, p. 2)

## Winter-run and Sacramento River Flow

- The annual cumulative winter run smolt abundance is highly dependent on the amount of flows in the Sacramento River, such that higher volume of water flowing in the river during the winter run emigration period results in greater abundance of winter run smolts both entering the Delta at Knights Landing and subsequently exiting the Delta at Chipps Island. (p. 4; regression #'s omitted)

# NMFS Exhibit 9

## Summary of Sturgeon Flow Needs (1)

- 1. Provide a mean April-May Delta outflow index (Chippis Island) of at least 25,000cfs in above-normal and wet year types. The minimum daily Delta outflow index will not be less than 20,000cfs in April and will not be less than 15,000cfs in May.
- Objective: Increase sturgeon production by providing adequate Delta outflow in above-normal and wet year types.

# NMFS Exhibit 9

## Summary of Sturgeon Flow Needs (2)

- 2. Provide mean monthly flows of at least 17,700cfs at Grimes(RM 125) and at least 31,100cfs at Verona (RM 80) between February and May for wet and above-normal water years.
- Objective: Provide flows to allow adult migration from the estuary or ocean to spawning grounds, spawning and downstream larval transport.